An Inferential System for Determination of Candidate Crash Sites for Search and Rescue Operations, Phase I

Completed Technology Project (2004 - 2004)

Project Introduction

We propose to develop, test, and prove the feasibility of a methodology for an inferential system for the generation of crash site likelihood maps. These maps will assist in the prioritization of candidate aircraft crash sites to be searched by Search and Rescue (SAR) operations. The crash site likelihood maps will be created by the fusion of the knowledge and experience of experts in aircraft crash site identification, together with, among others, knowledge about weather condi-tions, terrain information, and aircraft models. These maps will indicate the most likely areas where an aircraft may have crashed, and will allow SAR operations to focus their resources in these areas first, leading to faster and more efficient rescue operations. The proposed work di-rectly and innovatively addresses NASA's Search and Rescue (SAR) mission, by targeting the improvement of SAR operations. This proposed approach offers the innovation of the intelligent fusion of a variety of data, information and knowledge sources to generate crash site likelihood maps.

Primary U.S. Work Locations and Key Partners
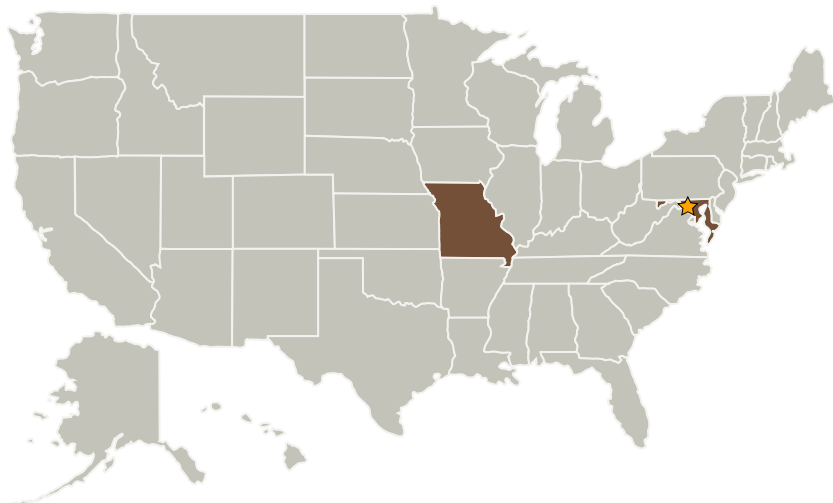
Organizations Performing Work	Role	Type	Location
⭐Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland
IntelliDyne, Inc.	Supporting Organization	Industry	Kansas City, Missouri

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Primary U.S. Work Locations	
Maryland	Missouri

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Michele Van Dyne

Technology Areas

Primary:

- TX16 Air Traffic Management and Range Tracking Systems
  └ TX16.3 Traffic Management Concepts